

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) An electro-mechanical actuator comprising:

a brushless DC motor for driving an output of said actuator; and

a controller configured to interrupt operation of said motor in response to at least one feedback signal, said feedback signal being representative of variation of at least one motor parameter with respect to variation of torque, said motor parameter comprising at least one of motor speed and motor current draw, and said motor parameter varying with variation in a load on said output.
2. (original) An actuator according to claim 1, wherein said brushless DC motor is coupled to said output through a gear train.
3. (original) An actuator according to claim 1, wherein said controller is configured to interrupt operation of said motor when said feedback signal reaches a predetermined value.
4. (cancelled)

5. (cancelled)
6. (cancelled)
7. (cancelled)
8. (cancelled)
9. (currently amended) An actuator according to claim 1 & ~~said~~ wherein said at least one feedback signal includes a second feedback signal ~~is~~ representative of a rotational position of a rotor of said motor.
10. (previously prevented) An actuator according to claim 9, said actuator further comprising at least one position sensor for providing said second feedback signal.
11. (original) An actuator according to claim 10, wherein said at least one position sensor comprises a Hall effect sensor disposed adjacent said rotor.
12. (original) An actuator according to claim 11, wherein said rotor comprises a two-pole pair permanent magnet rotor, and said at least one position sensor comprises three Hall effect sensors equally spaced along a circumference of said rotor.

13. (original) An actuator according to claim 9, wherein said controller is configured to disable said motor when said rotor has made a predetermined number of rotations and variation of said motor speed with torque reaches a predetermined level.
14. (currently amended) A vehicle window lift system for moving a vehicle window between open and closed positions, said system comprising:
a brushless DC motor for driving an output of an actuator, said output being coupled to a window lift mechanism for moving said window between said open and closed positions; and
a controller configured to interrupt operation of said motor in response to at least one feedback signal, said feedback signal being representative of variation of at least one motor parameter with respect to variation of torque, said motor parameter comprising at least one of motor speed and motor current draw, and said motor parameter varying with variation in a load on said window.
15. (original) A system according to claim 14, wherein said brushless DC motor is coupled to said output through a gear train.
16. (original) A system according to claim 14, wherein said controller is configured to interrupt operation of said motor when said feedback signal reaches a predetermined value.

17. (cancelled)

18. (cancelled)

19. (cancelled)

20. (cancelled)

21. (cancelled)

22. (currently amended) A system according to claim 14 ~~21~~, ~~said~~ wherein said at least one feedback signal includes a second feedback signal is representative of a rotational position of a rotor of said motor.

23. (previously presented) A system according to claim 22, said actuator further comprising at least one position sensor for providing said second feedback signal.

24. (original) A system according to claim 23, wherein said at least one position sensor comprises a Hall effect sensor disposed adjacent said rotor.

25. (original) A system according to claim 24, wherein said rotor comprises a two-pole pair permanent magnet rotor, and said at least one position sensor comprises three Hall effect sensors equally spaced along a circumference of said rotor.

26. (original) A system according to claim 20, wherein said controller is configured to disable said motor when said rotor has made a predetermined number of rotations and variation of said motor speed with torque reaches a predetermined level.

27. (currently amended) A method of providing pinch protection in vehicle window lift system for moving a vehicle window between open and closed positions, said method comprising:

providing a brushless DC motor for driving an output of an actuator, said output being coupled to a window lift mechanism for moving said window between said open and closed positions;

sensing at least one motor parameter of said motor that varies with a variation in a load on said window, said motor parameter comprising at least one of motor speed and motor current draw;

sensing torque of said motor; and

disabling said motor when a variation in said motor parameter with respect to a variation in said torque reaches a predetermined level.

28. (original) A method according to claim 27, said method further comprising:

identifying at least one zone of travel for said window wherein pinch protection is enabled; and

determining if said window is in said zone,

and wherein said motor is disabled in said disabling step if said window is in said zone as determined in said determining step.

29. (cancelled)

30. (cancelled)

31. (cancelled)

32. (cancelled)